

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A rotating electrical machine that has a rotor with a body made of magnetic materials, a stator surrounding the rotor; the stator has at least one armature coil, and the rotor has closed notches in the body and devices to selectively establish closed magnetic circuits passing around the armature coil of the stator; these devices include:
permanent excitation magnets (20, 24, 26, 30, 40, 46) able to generate magnetic fluxes;
excitation coils (22, 28, 42, 44, 48, 50) housed in the notches of the rotor to define coiled poles; said coils are able to be excited and generate magnetic flux components to counter the fluxes generated by at least some of the magnets to create defluxing;
~~wherein characterized by the fact that~~ the number Na of magnets and the number Nb of excitation coils and the arrangement of the coils and magnets in relation to each other form an elementary pattern (mc); ~~this elementary pattern can be that is~~ repeated a number Nmc of times, and
wherein the elementary pattern (mc) comprises at least one reluctance pole.
2. (Currently Amended) The ~~[[R]]~~ rotating electrical machine according to claim 1, ~~wherein characterized by the fact that~~ Na is equal to or greater than 1, Nb is equal to or greater than 1, Nmc is equal to or greater than 1, and the pair Na, Nb is different than 1.1.
3. (Currently Amended) The ~~[[R]]~~ rotating electrical machine according to claim 1, ~~wherein characterized by the fact that~~ the magnets Na of the same elementary pattern are arranged to generate a radial magnetic flux.
4. (Currently Amended) The ~~[[R]]~~ rotating electrical machine according to claim 3, ~~wherein characterized by the fact that~~ the magnets in the same elementary pattern have the same polarity.

5. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized by the fact that the coil poles in the same elementary pattern have the same polarity.
6. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized by the fact that it has, within an the elementary pattern~~[[,]]~~ comprises at least two consecutive magnets separated by at least one reluctance pole.
7. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized by the fact that it has, within an the elementary pattern~~[[,]]~~ comprises at least two consecutive coil poles separated by at least one reluctance pole.
8. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized by the fact that it has, within an the elementary pattern~~[[,]]~~ comprises at least one coil pole and a consecutive magnet separated by at least one reluctance pole.
9. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized by the fact that the winding strands of a coil belonging to an elementary pattern are held in two adjacent notches placed between two consecutive magnets.
10. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1 ~~wherein~~characterized by the fact that several elementary patterns are associated with each other.
11. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 10, ~~wherein~~characterized by the fact that each of the elementary patterns are different.
12. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 10, ~~wherein there is~~characterized by the fact that it has, between at least two consecutive elementary patterns, a succession of at least one pair of North-South or South-North poles created by at least one magnet.

13. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 12, ~~wherein~~characterized ~~by the fact that~~ the at least one magnet inserted between the at least two consecutive elementary patterns has a different polarity from at least one magnet belonging to at least one elementary pattern.
14. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized ~~by the fact that~~ the Nb coils are not all excited simultaneously.
15. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized ~~by the fact that~~ the intensity of modulation (I_{mod}) is in an interval between $-I_b$ and $+I_b$, where I_b is the maximum intensity of the magnetic flux supplied by the Nb coils.
16. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized ~~by the fact that~~ there is a residual magnetic flux (F_r) coming from the magnets which is not subject to the influence of the defluxing magnetic flux (F_d) produced by the excitation coils.
17. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized ~~by the fact that it~~ the electrical machine consists of an automobile alternator.
18. (Currently Amended) The ~~[[R]]~~rotating electrical machine according to claim 1, ~~wherein~~characterized ~~by the fact that it~~ the electrical machine consists of an automobile alternator-starter.
19. (New) A rotating electrical machine comprising a rotor with a body made of magnetic materials, a stator surrounding the rotor; the stator has at least one armature coil, and the rotor has closed notches in the body and devices to selectively establish closed magnetic circuits passing around the armature coil of the stator; wherein the rotating electrical machine comprises:
permanent excitation magnets able to generate magnetic fluxes;

excitation coils housed in the notches of the rotor to define coiled poles; said coils are able to be excited and generate magnetic flux components to counter the fluxes generated by at least some of the magnets to create defluxing;

wherein the number N_a of magnets and the number N_b of excitation coils and the arrangement of the coils and magnets in relation to each other form an elementary pattern (me) that is repeated a number N_{me} of times, and

wherein the elementary pattern comprises at least two consecutive magnets separated by at least one reluctance pole.

20. (New) A rotating electrical machine comprising a rotor with a body made of magnetic materials, a stator surrounding the rotor; the stator has at least one armature coil, and the rotor has closed notches in the body and devices to selectively establish closed magnetic circuits passing around the armature coil of the stator; wherein the rotating electrical machine comprises:

permanent excitation magnets able to generate magnetic fluxes;

excitation coils housed in the notches of the rotor to define coiled poles; said coils are able to be excited and generate magnetic flux components to counter the fluxes generated by at least some of the magnets to create defluxing;

wherein the number N_a of magnets and the number N_b of excitation coils and the arrangement of the coils and magnets in relation to each other form an elementary pattern (me) that is repeated a number N_{me} of times, and

wherein the elementary pattern comprises at least two consecutive coil poles separated by at least one reluctance pole.

21. (New) A rotating electrical machine comprising a rotor with a body made of magnetic materials, a stator surrounding the rotor; the stator has at least one armature coil, and the rotor has closed notches in the body and devices to selectively establish closed magnetic circuits passing around the armature coil of the stator; wherein the rotating electrical machine comprises:

permanent excitation magnets able to generate magnetic fluxes;

excitation coils housed in the notches of the rotor to define coiled poles; said coils are able to be excited and generate magnetic flux components to counter the fluxes generated by at least some of the magnets to create defluxing;

wherein the number N_a of magnets and the number N_b of excitation coils and the arrangement of the coils and magnets in relation to each other form an elementary pattern (me that is repeated a number N_{me} of times, and

wherein the elementary pattern comprises at least one coil pole and a consecutive magnet separated by at least one reluctance pole.